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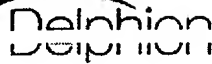
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Title: **JP58082462A2: DETECTION OF OPERATION OF EXPLOSION-PREVENTING DEVICE PROVIDED IN BATTERY**

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Country: **JP Japan**

Kind: **A**

Inventor(s): **KAIYA HIDEO
TSUDA SHINGO
YAMAGA MINORU**

Applicant/Assignee: **MATSUSHITA ELECTRIC IND CO LTD**

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Issued/Filed Dates: **May 18, 1983 / Nov. 12, 1981**

Application Number: **JP1981000182053**

IPC Class: **H01M 2/12;**

Abstract:

Purpose: To increase the efficiency of a gas leakage test by providing a sealing plate with a paraffin film, and affirming whether the paraffin film was broken or opened due to pressure developed during a gas leakage or not by means of a pin-hole detector.

Constitution: In a battery which has a sealing plate 3 coated with a paraffin film as indicated in Fig. (A), when any gas leakage occurs during charging, the pressure of a valve space part 17 increases due to gas flowing into the part 17 from a penetrating hole 5 provided in a positive terminal provided with an explosion-preventing device, and the paraffin film breaks to form an opening 18 as indicated in Fig. (B). After the opening 18 is formed due to the expansion caused by the internal pressure of the paraffin film 10 in such a manner as mentioned above, when a high alternating voltage is applied across electrodes 11 and 12 by use of a circuit keying device 16, electric discharge develops between the electrode 12 and the sealing plate 3 through the opening 18, and a current detector 15 detects the current. As a result, the detector 15 indicates that the paraffin film 10 is opened, and displays that the gas leakage has occurred.

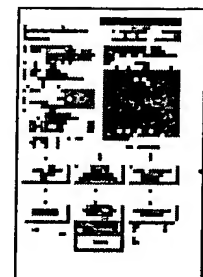
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(19)

(11) Publication number: **58082462 A**

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PATENT ABSTRACTS OF JAPAN(21) Application number: **56182053**(51) Intl. Cl.: **H01M 2/12**(22) Application date: **12.11.81**

(30) Priority:

(43) Date of application
publication: **18.05.83**(84) Designated contracting
states:(71) Applicant: **MATSUSHITA ELECTRIC IND CO
LTD**(72) Inventor: **KAIYA HIDEO
TSUDA SHINGO
YAMAGA MINORU**

(74) Representative:

**(54) DETECTION OF
OPERATION OF
EXPLOSION-PREVENTING
DEVICE PROVIDED IN
BATTERY**

(57) Abstract:

PURPOSE: To increase the efficiency of a gas leakage test by providing a sealing plate with a paraffin film, and affirming whether the paraffin film was broken or opened due to pressure developed during a gas leakage or not by means of a pin-hole detector.

CONSTITUTION: In a battery which has a sealing plate 3 coated with a paraffin film as indicated in Fig. (A), when any gas leakage occurs during charging, the pressure of a valve space part 17 increases due to gas flowing into the part 17 from a penetrating hole 5 provided in a positive terminal provided with an explosion-preventing device, and the paraffin film breaks to form an opening 18 as indicated in Fig. (B). After the opening 18 is formed due to the expansion caused by the internal

pressure of the paraffin film 10 in such a manner as mentioned above, when a high alternating voltage is applied across electrodes 11 and 12 by use of a circuit keying device 16, electric discharge develops between the electrode 12 and the sealing plate 3 through the opening 18, and a current detector 15 detects the current. As a result, the detector 15 indicates that the paraffin film 10 is opened, and displays that the gas leakage has occurred.

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